



Climate change and occurrence of diarrheal diseases: Evolving facts from Nepal

Author(s): Bhandari GP, Gurung S, Dhimal M, Bhusal CL
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Abstract:

BACKGROUND: Climate change is becoming huge threat to health especially for those from developing countries. Diarrhea as one of the major diseases linked with changing climate. This study has been carried out to assess the relationship between climatic variables, and malaria and to find out the range of non-climatic factors that can confound the relationship of climate change and human health. **METHODS:** It is a Retrospective study where data of past ten years relating to climate and disease (diarrhea) variable were analyzed. The study conducted trend analysis based on correlation. The climate related data were obtained from Department of Hydrology and Meteorology. Time Series analysis was also being conducted. **RESULTS:** The trend of number of yearly cases of diarrhea has been increasing from 1998 to 2001 after which the cases remain constant till 2006. The climate types in Jhapa vary from humid to per-humid based on the moisture index and Mega-thermal based on thermal efficiency. The mean annual temperature is increasing at an average of 0.04 degrees C/year with maximum temperature increasing faster than the minimum temperature. The annual total rainfall of Jhapa is decreasing at an average rate of -7.1 mm/year. Statistically significant correlation between diarrheal cases occurrence and temperature and rainfall has been observed. However, climate variables were not the significant predictors of diarrheal occurrence. **CONCLUSIONS:** The association among climate variables and diarrheal disease occurrence cannot be neglected which has been showed by this study. Further prospective longitudinal study adjusting influence of non-climatic factors is recommended.

Resource Description

Exposure :

weather or climate related pathway by which climate change affects health

Extreme Weather Event, Temperature

Extreme Weather Event: Drought, Flooding

Temperature: Fluctuations

Geographic Feature:

resource focuses on specific type of geography

None or Unspecified

Geographic Location:

Climate Change and Human Health Literature Portal



resource focuses on specific location

Non-United States

Non-United States: Asia

Asian Region/Country: Other Asian Country

Other Asian Country: Jhapa district, Nepal

Health Impact: 

specification of health effect or disease related to climate change exposure

Infectious Disease

Infectious Disease: Foodborne/Waterborne Disease

Foodborne/Waterborne Disease: Other Diarrheal Disease

Resource Type: 

format or standard characteristic of resource

Research Article

Timescale: 

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment: 

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content